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Why all anthropology should be called techno-anthropology

On the consequences of a pragmatist understanding of technology

ANDREAS BIRKBAK

Abstract

This chapter argues that if we follow a pragmatist understanding of humans and technologies, there is no reason to keep these phenomena strongly separated. The suggestion that all anthropology should be called techno-anthropology might provoke some readers, but it is first and foremost intended as an invitation to think in ambitious terms about what techno-anthropology might be(come). The main contribution of the chapter is to introduce Bruno Latour and John Dewey as *techno-anthropologists*. While these two thinkers are known for many other engagements, and wrote in different times, they share a pragmatist understanding of humans as fundamentally entangled in their technologies. Such a standpoint may sound trivial, but a lot of effort still goes into separating humans and technologies, both as a philosophical argument and as a critique of contemporary life. The chapter starts with an example of such efforts, namely Sherry Turkle's recent work on care robots and other new technologies that mediate human relationships. I move on to suggest that with Latour's notion of delegation, such mediation appears less alien. In order to develop further the consequences of Latour's techno-anthropologist moves, I turn to Dewey's understanding of technology as inquiry, a concept that deliberately ignores the physical/psychological dichotomy. The chapter concludes with a couple of empirical examples of how the pragmatist perspective might guide techno-anthropological analysis.

Introduction: Keeping things separate

The book to which this text seeks to contribute asks the question: What is techno-anthropology? Now, one way to start defining techno-anthropology is to outline what kind of answers might be provided by a techno-anthropological approach to things. While good answers are no doubt important, they are, however, also notoriously difficult to come by. Often a more useful place to start is by posing good questions. What questions might we ask with the help of techno-anthropology? As any rigorous English dictionary is happy to remind us, 'technology' derives from a combination of the Greek words *tekhne* and *logia*. While *tekhne* might be understood as art or craft, *logia* refers to systematic treatment, which together results in something like 'the systematic treatment of craft'. The second half of the new concept is 'anthropology', which derives from the Greek 'anthropos', meaning human being. Together with *logia* this second part then becomes 'the systematic treatment of human beings'. In combination, the notions of technology and anthropology put together in techno-anthropology might thus be taken to mean 'the systematic treatment of the relationship between craft and human beings'. At least if we assume that the hyphen means something like relationship (on this relationship, see also Børsen, this volume, and Botin, this volume).

What phenomena might be investigated with such a focus on techno-anthropology? One clear-cut example of intertwinement between human beings and crafted technologies, it might be argued, are human-like robots (Birkholm, this volume). In a recent and widely discussed book, an MIT professor of social studies of science and technology, Sherry Turkle (2011), suggests one way to pose what could easily be seen as an important techno-anthropological question: Do robots pose a fundamental challenge to our humanity? The argument that Turkle makes in *Alone Together – Why we expect more from technology and less from each other* is that yes, robots are a pivotal example of the kinds of technological fixes that makes us shy away from the fragile and complex stuff that human beings are. Why bother interacting with other people if we can replace them by robots that are much more stable and much less demanding? Turkle's concern, perhaps already obvious, is that the convenient mediation or even replacement of humans by technology results in more shallow relationships, which makes it possible to imagine a world where we feel alone despite being immersed in a wealth of interaction with and through technology.

Turkle's argument is a powerful one, something that the views count of her online TED talk is testament to. As of April 2013, more than 1.6 million visitors have watched Turkle pitch her argument in a 20-minute online video on TED.com (Turkle 2012). One of the reasons why the argument is so powerful is probably that it develops a well-known tension between something familiar and something 'other'. Most of us appreciate that strong human relationships are key to a good life, and if new technologies, such as apparently convenient human-like robots, are about to be sneaked in like a Trojan horse to threaten human well-being, we would like to hear more about it. However, the power of Turkle's argument also gives all the more reason to pause and think carefully about what assumptions about human beings and technology the argument rests on.

As one reviewer of Turkle's book points out (Lipman 2013), *Alone Together* is about carving out space for the conclusion that we should "put [technology] in its place" (Turkle 2011:295). The conclusion illustrates that Turkle is no luddite, who simply wants to return to a world without technology, but rather a champion of the idea that there is a place for advanced technology in the world, just not in the warmth of human relationships. But what if the 'place' of technology is right there in the middle of human relationships? Thinkers like Bruno Latour and John Dewey have offered persuasive accounts of technology that reject a divide between something genuinely 'human' as opposed to the 'other' of technology. They both do so on pragmatist grounds, by which I mean that they reject the usefulness of maintaining any a priori theoretical classifications of their objects of study. Instead, they argue that all knowledge production must start with what has consequence in practice – a kind of pragmatic realism. Studying concrete practices and their consequences, it is hard to uphold the idea that technology neither could nor should be kept out of human relationships.

The philosophical tradition of pragmatism, in which Dewey is one of the most prominent members, is a long and rich one that I can only recommend that the reader explore further. The question of the relationship between the pragmatist tradition and the more recent strand of research within actor-network theory (ANT) and science and technology studies (STS), in which Latour is a central figure, is an interesting topic that it requires a different paper to deal with. My ambition here is merely to develop further the pragmatist line of thinking about technology introduced above, and try to show how the thoughts of Latour and Dewey can be

useful resources for techno-anthropology – not least for problematizing arguments like Turkle's and thus making techno-anthropology relevant to contemporary debates.

Latour: What makes us human is our delegation of effort to nonhumans

Despite being widely cited, Bruno Latour can be surprisingly hard to pin down. For many, his earliest work continues to be his most famous contribution, especially the ethnographic studies of scientists at work in *Laboratory Life: The Social Construction of Scientific Facts* (Latour and Woolgar 1979). The subtitle certainly could be taken as an invitation to understand Latour as another social constructivist, but the authors in fact removed the word 'social' from the title in a later version of the book to discourage such as reading (Latour and Woolgar 1986). Indeed, when seen from the discipline of sociology, Latour seems to take on the opposite guise. In another widely read book, *Reassembling the Social – An Introduction to Actor-Network Theory*, Latour (2005) argues that sociologists tend to vest too much explanatory power in 'the social' and ignore what he has previously called the 'missing masses' of the many objects we are surrounded by (Latour 1992). Given these apparently contradictory arguments – too little 'social' versus too much – it becomes clear that if there is any coherence in Latour's work, his ambition cannot be to either explain away the human or the nonhuman side of things. Indeed, the self-contradiction is only apparent, since Latour's project is exactly to avoid getting caught up in what he sees as an unproductive and unrealistic dichotomy between social and non-social entities, or simply humans and technologies, to use the terms of techno-anthropology.

Whether Latour succeeds in his project is of course another question. The focus here, however, is to discuss what Latour has to offer as a techno-anthropologist. In pursuing this task it might prove worthwhile to look beyond the famous books mentioned above, down at the undercurrent of shorter articles that Latour has also published over the last three decades. More specifically, the rest of this section will suggest how two of Latour's articles can serve as useful entry points to his techno-anthropology. The point is to extract arguments from Latour's work that underpins the main thesis of this chapter – that being human means being techno-human.

In an article called *On Interobjectivity*, Latour (1996) asks the question of what defines us as humans, which also means that he sketches his own anthropology. As always, defining something requires making a difference, and in this case Latour draws a line between animals and humans. The assumption, Latour argues, on which traditional sociology has based its exclusive focus on humans is that humans exhibit an extraordinary 'sociality', or social complexity. While animals may engage in frequent interaction, such events come nowhere near the richness of the social interaction between humans that is the object of sociology. Latour, however, makes the case that this assumption no longer holds. Recent research within sociobiology, on which Latour has written together with the biologist Shirley Strum (Latour and Strum 1986; Strum and Latour 1987) demonstrates how monkeys lead highly complex social lives. In order to understand this, "one must have seen a troop of some 100 baboons living in the midst of the savannah, looking incessantly at each other so as to know where the troop is going, who is with whom, who is grooming whom, who is attacking or defending whom" (Latour 1996:231). In order to interact successfully, any baboon has to constantly test its dominance and membership relationships, the result of which is a level of social complexity that can easily compare with that of humans.

Given the discovery that humans are not made exceptional by the complexity of their social interaction, Latour then asks what else might explain the obvious differences between humans and animals. His lead in answering this question is the observation that humans in fact *do not* have to constantly test their social relationships with other humans in order to act in meaningful ways. In order to describe this difference, Latour introduces a distinction between the *complex* social life of baboons (and many other primates), and the *complicated* social life of humans. The notion of human interaction as complicated is supposed to describe how humans do not have to deal with the full complexity of their social worlds all the time, because our interactions are framed by the massive amount of objects and technologies that we use all the time. Latour thus finds another answer to the question of what distinguishes humans from other primates: It is our use of things rather than the level of complexity in our social interactions. Our use of things makes it possible to structure interactions, as when complicated infrastructures such as traffic lights make it possible for a lot of humans in cars to coexist, because they do not have to watch *all* other cars *all* the time in order to survive the rush hour. In Latour's language, technologies like traffic lights shifts human life from requiring constant attention in *complex* settings to requiring *complicated* infrastructures.

Here, one starts to glimpse the contours of an understanding of humans that is fundamentally techno-anthropological. Latour argues that the primary quality that distinguishes humans from animals is the use of technologies. Again, this might be easy to accept at first, but an interesting consequence that Latour suggests in his article is that it becomes difficult to refer to face-to-face relationships as particularly genuine, in the way Sherry Turkle does. Here it is worth quoting Latour at length:

"We say, without giving the matter too much thought, that we engage in "face-to-face" interactions. Indeed we do, but the clothing that we are wearing comes from elsewhere and was manufactured a long time ago; the words we use were not formed for this occasion; the walls we have been leaning on were designed by an architect for a client, and constructed by workers – people who are absent today, although their action continues to make itself felt. The very person we are addressing is a product of a history that goes far beyond the framework of our relationship" (Latour 1996:231)

In this quote, the special virtue of direct face-to-face interaction between human beings that Turkle upheaves to a kind of 'gold standard' falls apart. Human interaction is always mediated by something, be it social media, a robot baby seal, or simply the clothes we are wearing. Drawing on Latour it becomes possible to focus on the specific qualities of different kinds of mediation instead of comparing mediating technologies with an imagined gold standard of non-mediated 'genuine' relationships. This is Latour's techno-anthropological move.

In order to develop a bit further what such a move might mean, I now turn to a second article called *Where are the missing masses? The sociology of a few mundane artifacts* (Latour 1992). In this text Latour introduces the concept of delegation to describe the transformation of "a major effort into a minor one" (Ibid.:154). It is precisely this transformation of effort that is at stake when humans use technologies, as also pointed out above. The strength of this second

text is that it offers a range of useful examples, some of which are surprisingly simple. I will mention two of them here, the door and the seatbelt.

The example of a door is useful for demonstrating the immense work done by technologies in order to make human interaction possible. In other words, it illustrates our dependency on nonhumans in order to exist as humans. As argued in the quote above, face-to-face interactions are often framed by walls. These walls were designed and built by people no longer present in the situation, which undermines the standpoint that face-to-face relationships are more genuinely 'situated' or 'local' than, say, email interaction. Another feature of walls is that they cut off the rest of the world, which is highly useful for making it possible to focus on the social interaction going on inside the walls. The inconvenience, however, is that the framed situation is hard to obtain: You have to build a wall, which requires bricks, cement, tools, not to mention a certain strength, persistence and ability. To make matters even worse, you have to break down the wall again if you want to get out of the specific social interaction that took place in your newly built framework. This is what Latour calls the "wall-hole dilemma" (Latour 1992:155).

On the backdrop of this tiresome masoner's dilemma, it becomes possible to more fully appreciate the virtue of doors, with their hinges, handles, and man-sizedness. By placing a door in a wall it becomes possible to avoid doing the work of destroying and rebuilding walls over and over again in order to benefit from their ability to frame social interaction. Instead, these walled spaces can be reused almost infinitely as 'rooms' that simplify the world for us when we need it, something that billions of humans benefit from every day in order to coexist. The major effort of constantly breaking down and reconstructing walls has been transformed into the minor effort of operating door handles by delegating the task of solving the wall-hole dilemma to the technology called doors.

If this first example of a door made it sound more plausible that our use of technologies is a premise for our very existence as human beings, one might still raise the objection that another important dichotomy exists, namely between the ability of a human to have feelings and act morally, and a door's apparent lack of those qualities. Using the example of a seat belt, however, Latour rejects that this is the case. The seat belt has features similar to the door, we might note, because it makes it possible to simultaneously be tied down and able to move around enough to operate a car. A door exhibits a similar flexibility by making it possible to choose between being shut off from the world and exit into the world. The seat belt has an additional feature in some cars, however, which is that it has to be fastened in order for the engine to start. In other cars an annoying beep tone continues until the belt is fastened. According to Latour this demonstrates that technologies, too, have the ability to be moral in the sense that if a driver decides to perform the immoral (but perhaps emancipating) act of driving with the belt unfastened, he or she is prevented from doing so. The enforcement of the moral dictum "don't kill yourself" has been delegated to the technology called seat belts (Latour 1992:168).

It is such complicated mechanisms that imbue technologies like seat belts with the power to be moral despite being non-human. This does not only apply to seat belts, but to many technologies. If one adds the mechanism of a lock to a door, it will be possible to think of several ways in which a door may act morally by preventing humans from acting immorally.

The ability to act morally, which common sense might call 'deeply human', is in practice deeply entangled with the non-human technologies that co-define who we are.

Dewey: Technology as inquiry

In the next part of the chapter I suggest that the latourian anthropology of humans as defined by their delegation of effort to technology can be seen as informed by pragmatist philosophy. For this reason, it is possible to look to one of the most prominent pragmatists, John Dewey, in order to develop further why all anthropology should be called techno-anthropology. Despite the longer history of reception allowed by Dewey living his life almost a century earlier than Latour, Dewey's work continues to resemble a labyrinth, difficult to navigate, not least due to the sheer size of his intellectual production. In the following, I use Larry Hickman's (1990) recent work in a volume called *John Dewey's Pragmatic Technology* as the main guide for tracing Dewey's understanding of technology through his works.

In order to appreciate what makes Dewey's thought pragmatic, however, it is useful to first mention one of his shorter books, *The Public and its Problems* (1927), in the beginning of which Dewey makes a few central arguments. First and foremost, Dewey's pragmatism consists of understanding phenomena by looking at their consequences, rather than designing a priori theories with which to conceptualize them. An instructive, and perhaps even radical, example is Dewey's rejection of the distinction between individual and society. For Dewey, *all* actions originate in some specific individual, so it does not make sense to distinguish between two kinds of explanation in the form of individual and society, as so often done in the social sciences. Moreover, according to Dewey there is no situation in which an individual can exist without always already being defined by its associations with other people and other things, so 'society' is always there, making the distinction between individual and society disposable in a second sense. Latour (1986) makes a similar argument when he recommends avoiding making any a priori distinctions between the 'sizes' of actors. In short, Latour and Dewey share the pragmatist insight that a priori categories have limited usefulness for understanding the world.

Following this devaluation of abstract philosophical dichotomies, Dewey also rejects the nature/culture dichotomy by insisting on understanding humans as always within nature. It follows that the technologies we design are also a part of nature, just like it is a part of nature that moles build tunnels and molehills, and beavers construct dams. Another consequence is that we do not have any "pure sensations" that can then be corrupted by mediating technologies, a point on which Dewey agreed with another prominent pragmatist philosopher, William James (Hickman 1990:32). Rather, our sensations are inevitably shaped by the specific ways in which the world has developed before us, including the way language has evolved and technologies and objects have been amassed. Dewey's argument is thus similar to Latour's rejection of the idea that there exists a face-to-face gold standard when evaluating human interaction.

Having introduced Dewey as a thinker who rejects dichotomies like individual/society and nature/culture, it is now possible to appreciate the central techno-anthropological move made by Dewey. According to him, humans cannot understand the world without technology. This is part of Dewey's 'anti-foundationalism', which involves a rejection of the idea, common in mainstream science, that there is a fundamental frame of reference called nature, located

somewhere outside human activity, and upon which scientific facts can be based. Hickman explains well Dewey's combination of such antifoundationalism with seeing experience as always mediated:

"Against [the] traditional philosophical views Dewey proposes a "Copernican" revolution. Its meaning would be that the world of our experience is a real world, but a world that is in need of transformation in order to render it more coherent and more secure. Knowing an experienced world is instrumental to rearranging it and giving it a form that is more useful to our purposes. But knowing in this sense is not something done apart from the world: it takes place experimentally inside experienced situations. The difference between knowing and other existential interaction is, in Dewey's terms, not between something going on within nature as a part of itself and something else taking place outside it, but is that between a regulated course of changes and an uncontrolled one. In knowledge, causes become means and effects become consequences, and thereby things have meanings." (Hickman 1990:37-38)

What Hickman gets at here is that for Dewey our very ability to navigate the world hinges on our use of technology to simplify the world and make sense of it. Here, one might go back to the example of the technology of walls and how they fend off the world in a way that frames social interaction so that it may become possible to handle in practice. In order to capture this central role of technology in human lives, Dewey makes the word 'technology' largely synonymous with his key idea of 'inquiry', or what Hickman calls 'knowing', which means identifying means and consequences, and thus making sense of our experiences.

Another way to understand Dewey's conceptualization of technology as inquiry is to recall the definition of technology as 'the systematic treatment of craft'. With Dewey, the notion of 'systematic treatment' takes on new significance in the sense that technology comes to be understood as the very ability of humans to treat the world systematically. The reason why all anthropology should be called techno-anthropology is that technology is the means by which humans come to understand the world in terms of meaningful connections between actions and consequences. As it may have already occurred to the reader, such an understanding of technology is radical in the sense that it rejects any distinction between physical and psychological technologies. Theories and concepts are also technologies in so far as they help us make sense of the world. One might say that with Dewey, technology changes from describing the part of the world made out of nuts and bolts to describing a sort of 'technological gaze', fundamental to human existence, by means of which we make pragmatic sense of the world in somewhat mechanical terms connecting actions with consequences.

At the same time, Dewey's radical reconceptualization of technology as inquiry should certainly not be taken as an invitation to lose sight of technologies in the more commonsensical meaning of the term. Dewey argued that technological change was key to understanding other changes, such as political change. Crucially for Dewey, this does not happen in a simple, deterministic way, but in the sense that technological development often proves necessary for other kinds of development. In *The Public and Its Problems*, Dewey explains the rise of democracy as closely associated with the many economic, political and

philosophical changes during the industrialization. At the same time, industrialization leads to a proliferation of complex consequences of actions that can no longer be contained in local communities, which again makes it difficult for publics to organize and keep democracy working. This gives communication technologies a central role, according to Dewey:

"Our modern state-unity is due to the consequences of technology employed so as to facilitate the rapid and easy circulation of opinions and information, and so as to generate constant and intricate interaction far beyond the limits of face-to-face communities" (Dewey 1927:114)

The interesting thing about this statement in comparison with more recent analysis of new media technologies is that with Dewey's understanding of technology, the introduction of new media does not only change how we communicate about the world – it also changes the world itself by changing how we make sense of it. This is why I find it interesting to also read Dewey as a techno-anthropologist. With his conceptualization of technology as inquiry, the investigation of new technologies also becomes the investigation of new human worlds – which is a pertinent and ambitious problem formulation for techno-anthropology. In order to make clearer what such a problem formulation might lead to, I end this chapter with discussing the apparently very different empirical cases of stone axes and social media.

Two empirical examples: From stone axes to social media

In a book (and radio program series) called *A History of the World in 100 Objects*, the director of the British Museum, Neil MacGregor (2012), presents a view of humans as seen through their objects. The second object presented in the book is one of the earliest objects ever shaped by humans – a stone chopping tool – which serves as a surprisingly illustrative example of the arguments put forward by Latour and Dewey. As MacGregor writes:

"Lots of animals, particularly apes, use objects; but what sets us apart from them is that we make tools before we need them, and once we have used them we keep them to use again." (MacGregor 2012:10)

According to MacGregor, the stone-chopping tool is remarkable, because it marks the beginning of "an impulse not just to make things but to imagine how we could make things 'better'" (ibid.:11). The archeological inquiry that MacGregor describes proposes that the particular modified stone under discussion is 1.8-2 million years old. In a very concrete way, the story of the earliest man-shaped tools is the story of the beginning of our existence as human beings:

"...the chopping tool is the beginning of a relationship between humans and the things they create which is both a love affair and a dependency. From the point where our ancestors started making tools like this, people have been unable to survive without the things they make; in this sense, it is making things that make us human" (ibid.:11)

There is not a long way from this argument to Latour's definition of humans as those animals who surround themselves with technologies. With reference to the objects found in the British Museum, it is clear that we do not need Latour to arrive at the conclusion that all

anthropology should be called techno-anthropology – yet his texts can serve as a guide on how to study contemporary phenomena such as doors and social media without falling into the traps of seeing a door as a non-moral 'part of nature' or seeing social media as obscuring a 'more human' mode of face-to-face communication.

But what about Dewey's perhaps less accessible notion of technology as inquiry? For illustrating this argument, better tools are needed, such as the improved stone hand axe that MacGregor describes as the third object of his book. The hand axe is found in the same Oldupai Gorge in Tanzania as the stone-chopping tool, but was made almost 1 million years later. Carefully making a hand axe requires real imagination – the ability to see tool-potential in a stone and learn the craft of realizing it. As MacGregor (2012:14) puts it: "It's here we find the real beginnings of modern humans". How does this make sense? Or to ask with Dewey, how did the construction of hand axes change the human world? MacGregor continues:

"All the carefully focused and planned creativity required to make this axe implies an enormous advance in how our ancestors saw the world and how their brains worked. The hand axe may also contain the evidence of something even more remarkable: this chipped stone tool may hold the secret of speech, it may have been in making things like this that we learnt how to talk to one another (...) Surprisingly, the areas of the modern brain that you use when you're making a hand axe overlap considerably with those you use when you speak. It now seems very likely that if you can shape a stone you can shape a sentence." (MacGregor 2012:14-15)

Following Dewey, the association of hand axes with speech in fact does not seem that incredible. Sidestepping a definition of technology that distinguishes strictly between the physical and the psychological, it makes sense that the technology of a hand axe implied another technology, namely speech. As argued above, a hand axe could not be crafted without a well-developed imagination of potential over time: Transforming a rock into a tool required both patience and the ability to learn and improve the techniques of one's ancestors. Such a sense of time is likely to have made it correspondingly more important to make detailed arrangements and plans for the future through language. In other words, the way we as humans give meaning to the world and appreciate that our actions have consequences over time is fundamentally a part of our use of technology, and something as 'human' as language may very well have developed in association with something as 'technological' as chipped stone axes. Archaeological evidence indicates that we were techno-anthropological from the very beginning, as Dewey and Latour would have it (however, both Birkholm, this volume, and Jensen, this volume, argue that the 'techno' prefix has increased in importance over time).

One thing is stone axes, then, but what about something slightly more relevant to contemporary life? How might techno-anthropology contribute and make itself relevant today? The second part of Turkle's argument in *Alone Together* concerns new media technologies. Her argument is that there is a tragic irony to the fact that we are 'always on' through our smartphones and wireless Internet, but at the same time more alone than before. One of her more pertinent examples is that of the "postfamilial family" (quoting Wellman and Hogan 2006), whose members live in the same house, but live separate lives through their individual devices with Internet-access. An important source of power for Turkle's argument,

however, seems to be that this connected lifestyle is something radically new, something 'other' that we do not yet know how to deal with. In the conclusion, she says: "The networked culture is very young" (Turkle 2011:294). But in light of the preceding arguments in this chapter, we, as techno-anthropologists, might be well equipped to ask: Is that true? Have we not always been networked in some sense? And is it really a new thing that our relationships are mediated by technology? Is there such a great difference between simplifying human interaction by means of walls and doors vis-a-vis using social media that one can log on and off?

In my own attempts at techno-anthropological research, I am looking at how we sometimes use social media in reaction to infrastructural innovations that influence our everyday lives. In a sense, this is very much about politics: What is the relationship between people and the technological systems that influence their lives? The interesting feature of social media is that through these technologies, people can connect with other people and share their experiences in ways that make them more meaningful (see also Munk, this volume, on techno-anthropological studies of the web). For example, I studied how inhabitants of the Danish island of Bornholm used Facebook groups to share their experiences of the severe snowstorm that made it very difficult to get anywhere during Christmas 2010 (Birkbak 2012, 2013). In these groups, users found confirmation that they were not alone in the way they understood the situation, and for some this was a deeply comforting experience. This finding echoes those of Bakardjieva (2012), who argues that the Internet amplifies the everyday life component of democratic politics she calls 'subactivism'. On the level of subactivism, people create and refine 'we-identities' based on their everyday lives, most of which are not political in any traditional sense, but certainly has political potential, as when the members of one Facebook group on Bornholm agreed to try and lobby the national news media in order to draw attention to their needs, which they felt were being overlooked by the local authorities.

While the opportunities that social media technologies offer for sharing experiences and organize around otherwise overlooked issues are both new and fascinating, there is a long way from there to Turkle's conclusion that human relationships beyond face-to-face interaction is something that challenges our very humanity, or the conclusion that human relationships are now more mediated than before. Drawing on Dewey, we have always required technologies to perform collective inquiry. Before social media, printed media played a similar role of circulating experiences across space and time. Before printed media, spoken language mediated our relationships, making it possible to coordinate action across space and time. As suggested by MacGregor, language is not some inherent ability of humans, but a technology that we make use of, and one that is most likely connected to our use of other technologies, such as the stone axe, the powers of which made it urgent to coordinate action through language.

When read through the techno-anthropological gaze proposed in this chapter, the subtitle of Turkle's book thus takes on new meaning: Perhaps it was always the point to "expect more from technology and less from each other"?

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